CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

MEDICAL TOXICOLOGY BRANCH
SUMMARY OF TOXICOLOGY DATA
NAME OF ACTIVE INGREDIENT
ENDRIN

SB 950-171, Tolerance # 131

September 22, 1987

I. DATA GAP STATUS

Chronic rat: Data gap, inadequate study on file, possible adverse effect indicated

Chronic dog: Data gap, inadequate study on file, possible adverse effect indicated

Onco rat: Data gap, inadequate study on file, no adverse effect indicated

Onco mouse: Data gap, inadequate study on file, no adverse effect indicated

Repro rat: Data gap, no study on file

Terato rat: Data gap, no study on file

Terato rabbit: Data gap, no study on file

Gene mutation: Data gap, no study on file

Chromosome: Data gap, no study on file

DNA damage: Data gap, no study on file

Neurotox: Not required at this time

Note, Toxicology one-liners are attached

** indicates acceptable study
Bold face indicates possible adverse effect

Tox Summary Index prepared by D. Shimer.

No EPA one-liners available as of August 31, 1987.

II. TOXICOLOGY SUMMARY

CHRONIC, RAT

012 912928 "Physiological Effects of Feeding Experimental Animals on Diets Containing Endrin (Compound 49-RL-269) In Various Concentrations Over Prolonged Periods." (Kettering Laboratory, 7-11-53). Technical Endrin, no 2.

purity stated, was given to rats in the diet for two years at 0, 1, 5, 25, 50 or 100 ppm, 20/sex/group. **Possible adverse effect** manifest in low NOEL = 1 ppm. NOEL based on reduced body weight gain in males, increased relative liver weights (males) and relative kidney weights (females): all at 5 ppm. Increased mortality, esp. in females (signif. at 25 ppm and above). **Unacceptable.** No characterization of test material, excessive mortality, no hematology, serum chemistry, clinical observations or histopathology included. A. Apostolou, 5-29-85.

CHRONIC, DOG

012 38279 (previously designated 012:912928-2) "Physiological Effects of Feeding Experimental Animals on Diets Containing Endrin (Compound 49-RL-269) in Various Concentrations Over Prolonged Periods." (Kettering Laboratory, 7-11-53) Technical Endrin was given to dogs in the diet 6 days/week at 0, 4, 8, 10, 25 or 50 ppm for 6 months. **Possible adverse effects**: high general toxicity (study could not be extended because doses were too high.) All animals died at 10, 25 or 50 ppm with diffuse degeneration of brain, heart, liver, kidneys, and pulmonary hyperemia and edema. At 4 and 8 ppm there was slight enlargement of livers and brains, increased kidney weight at 8 ppm. **Unacceptable.** Purity not given, dose levels apparently too high, too few animals, all blood data is missing, excessive mortality. Report mentions a new study in beagles at 1 to 3 ppm underway as the report was being completed. CDFA has no such study on file. A. Apostolou, 5-29-85.

ONCOGENICITY, RAT

013 912929 "Bioassay of Endrin For Possible Carcinogenicity." (Gulf South Research, 1979) Endrin, 97%, was given to Osborne-Mendel rats in the diet, 2.5 or 5 ppm to males, and 3 or 6 ppm to females, 50/sex/group, 10/sex/control group. **No oncogenicity indicated**. **Unacceptable due to major variances from guidelines:** Two dose levels only, variable dose levels, only 10 concurrent controls/sex (plus pooled controls from other studies run nearly concurrently), insufficient individual data for assessment, time of tumor appearance not included, etc. A. Apostolou, 5-28-85.

ONCOGENICITY, MOUSE

013 38446 "Bioassay of Endrin for Possible Carcinogenicity." (Gulf South Research, 1979) Endrin, 97%, was given in the diet to B6C3F1 mice at 1.6 or 3.2 ppm (males) and 2.5 or 5 ppm (females), 50/sex/group, 10/sex/control group. **No oncogenicity indicated**. **Unacceptable due to major variances from guidelines:** Two dose levels only, variable dose levels, only 10 concurrent controls/sex (plus pooled controls from other studies run nearly concurrently, unacceptable losses of low dose males due to technical error, insufficient individual data for assessment, time of tumor appearance not included, etc.). A. Apostolou, 5-28-85.

REPRODUCTION, RAT

No study on file.

TERATOLOGY, RAT

No study on file.

TERATOLOGY, RABBIT

No study on file.

GENE MUTATION

No study on file.

CHROMOSOME

No study on file.

DNA DAMAGE

No study on file.

NEUROTOXICITY